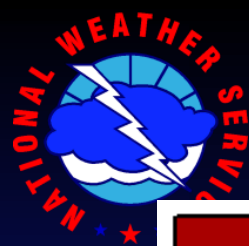


# Weekly Weather Briefing

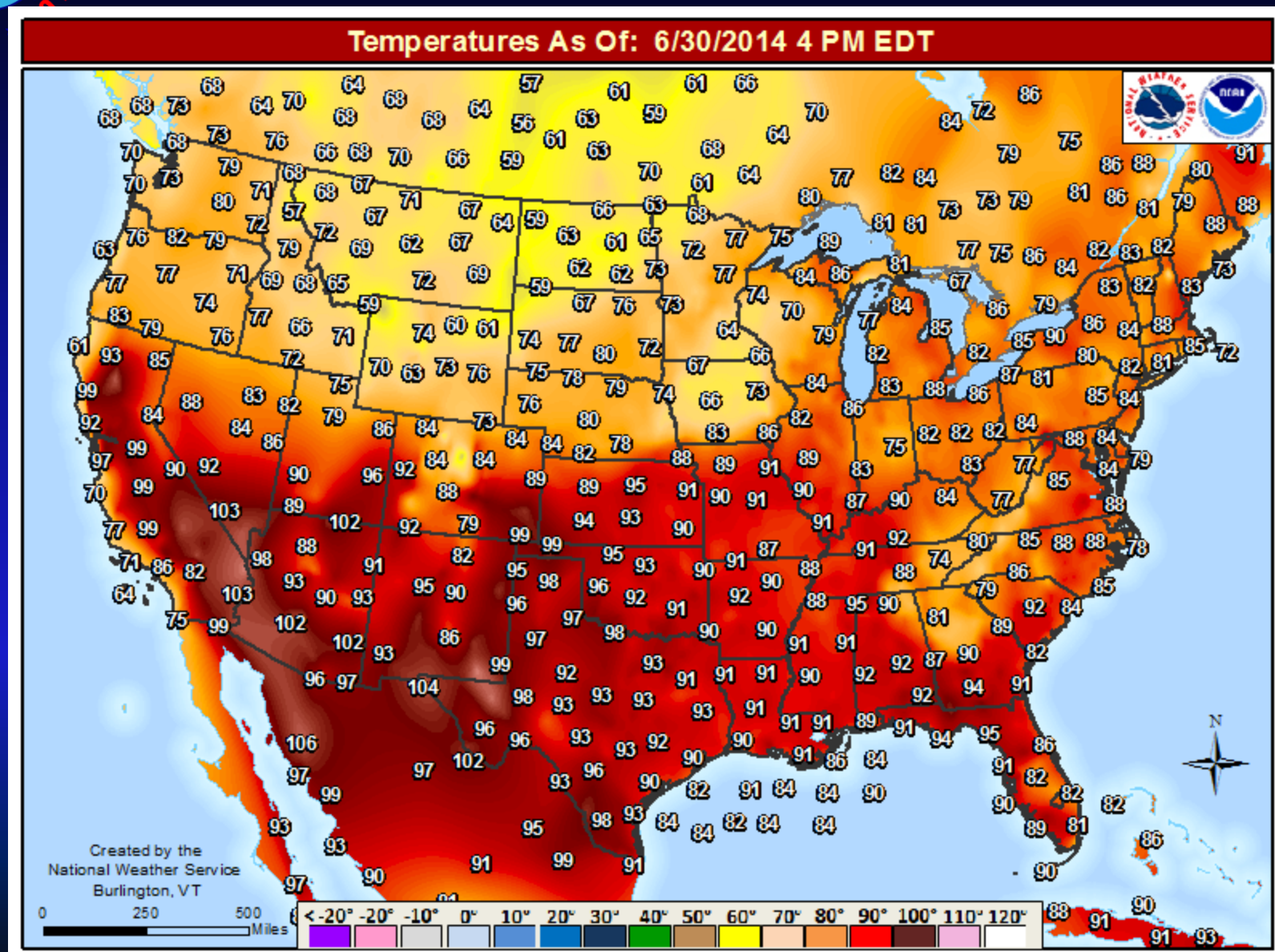
“Monsoon Surge”

NWS Albuquerque  
June 30, 2014



# Most Recent Temperatures

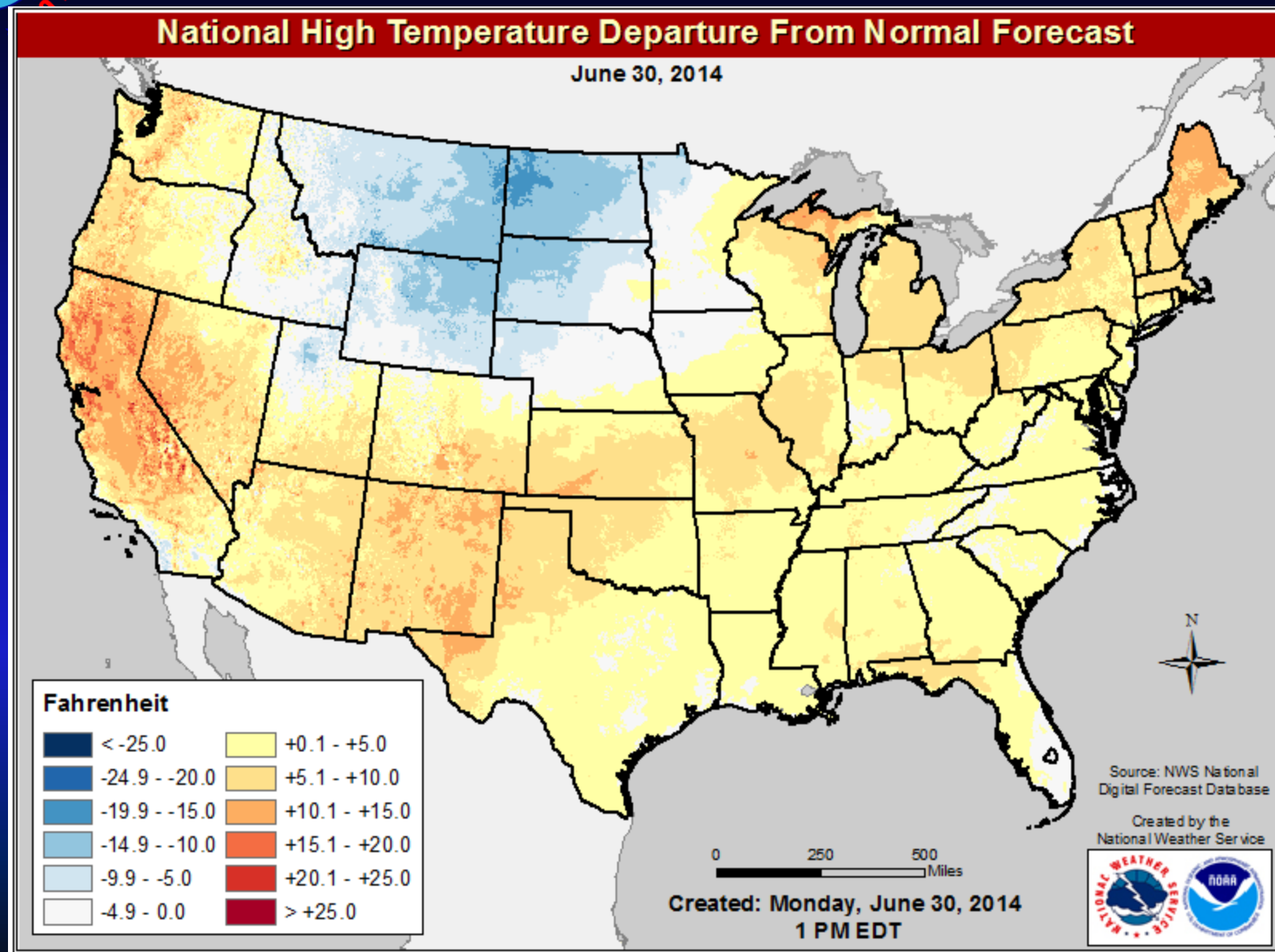
Weekly Weather Briefing



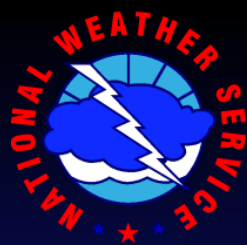


# Today's Max Temp Departure from Normal

Weekly Weather Briefing







# Diego Wildfire Growth

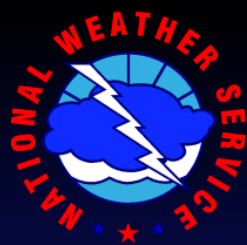
Weekly Weather Briefing



## Diego Fire

All photos  
by Brent  
Wachter





# Projected 1 Hour Surface Smoke Concentrations

<http://www.weather.gov/aq/sectors/southrockies.php>

Weekly Weather Briefing

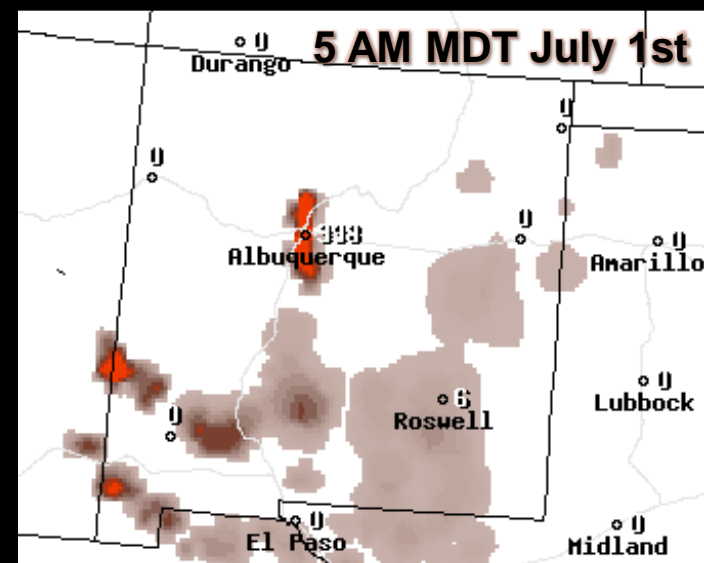
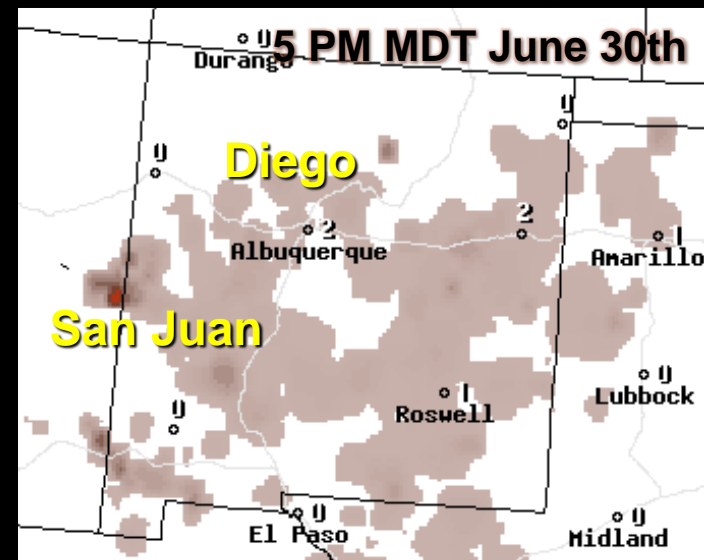
Is It Smoky Outside? Protect Your Health.

Use the **5-3-1** Visibility Method <https://nmtracking.org/fire>

During Fires If You Can See* About: <small>*When Humidity is Low</small>	And You Are:	Or You Have:
<b>5</b> miles	An Adult A Teenager An Older Child	Age 65 and Over Pregnant A Young Child
<b>3</b> miles	Check visibility often.	Asthma Respiratory Illness Lung or Heart Disease
<b>1</b> mile	Minimize outdoor activity.	Minimize outdoor activity.
	Stay Inside.	Stay Inside.

Health and Fire Information <https://nmtracking.org/fire>

No matter how far you can see if you feel like you are having health effects from smoke exposure then take extra care to stay inside or get to an area with better air quality. You should also see your doctor or other health professional as needed.



Concentration values are micrograms per cubic meter.

Conversion table available at:

[http://www.srh.noaa.gov/media/abq/briefings/Conc\\_AQI\\_PM2\\_5.png](http://www.srh.noaa.gov/media/abq/briefings/Conc_AQI_PM2_5.png)



# Diego Fire Smoke Plume

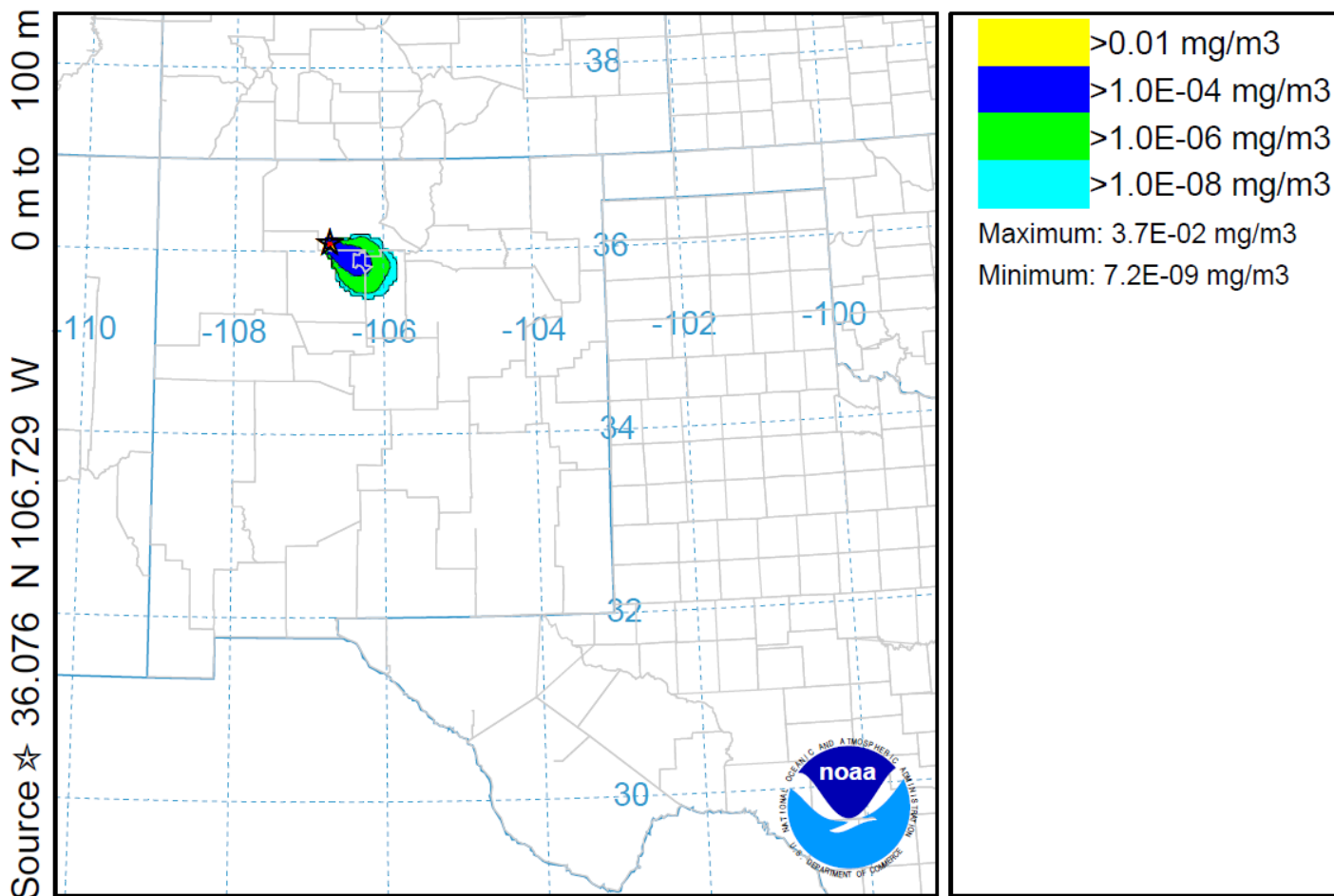
Weekly Weather Briefing

## NOAA HYSPLIT MODEL

Concentration (mg/m<sup>3</sup>) averaged between 0 m and 200 m

Integrated from 1500 30 Jun to 1800 30 Jun 14 (UTC)

Mass Release started at 1500 30 Jun 14 (UTC)







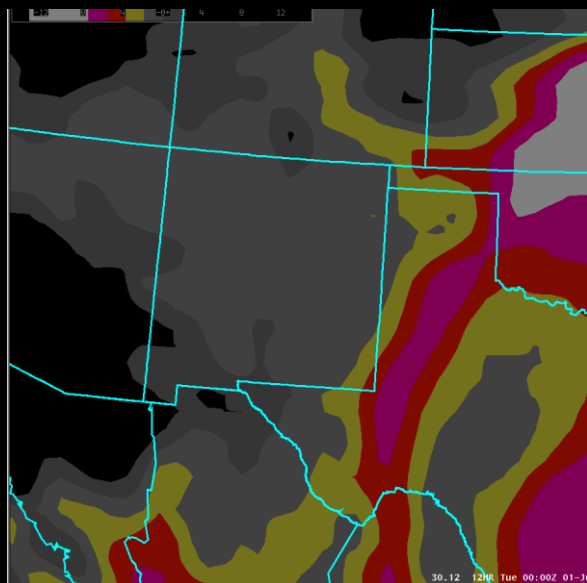
# THUNDERSTORM POTENTIAL



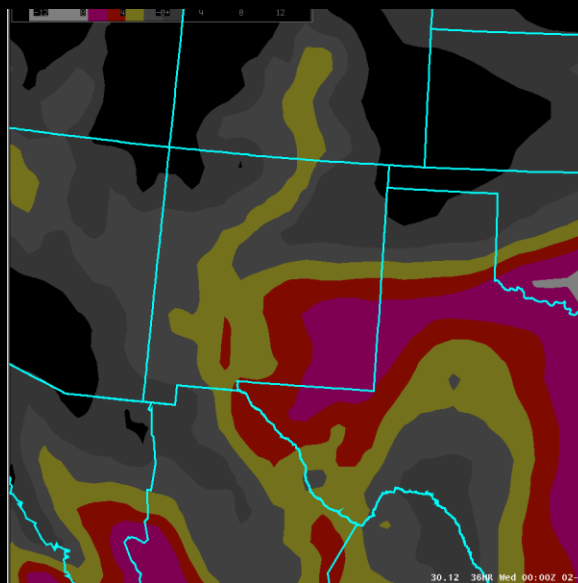
LOWEST

HIGHEST

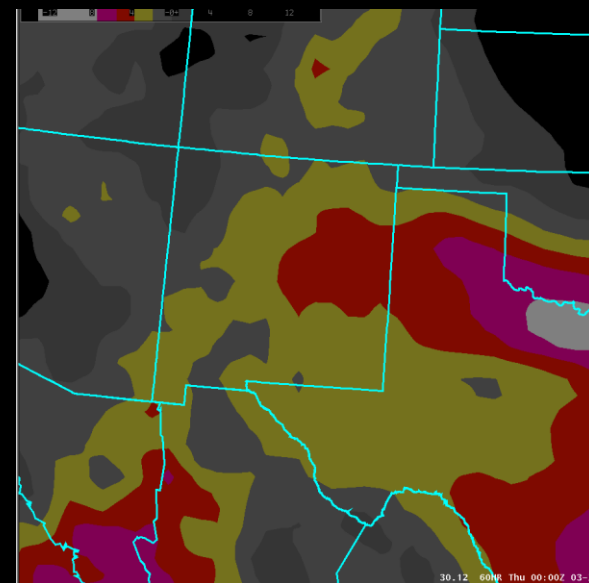
**TODAY**



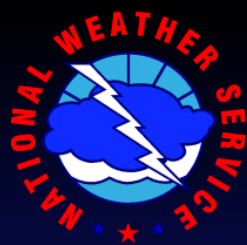
**TUESDAY**



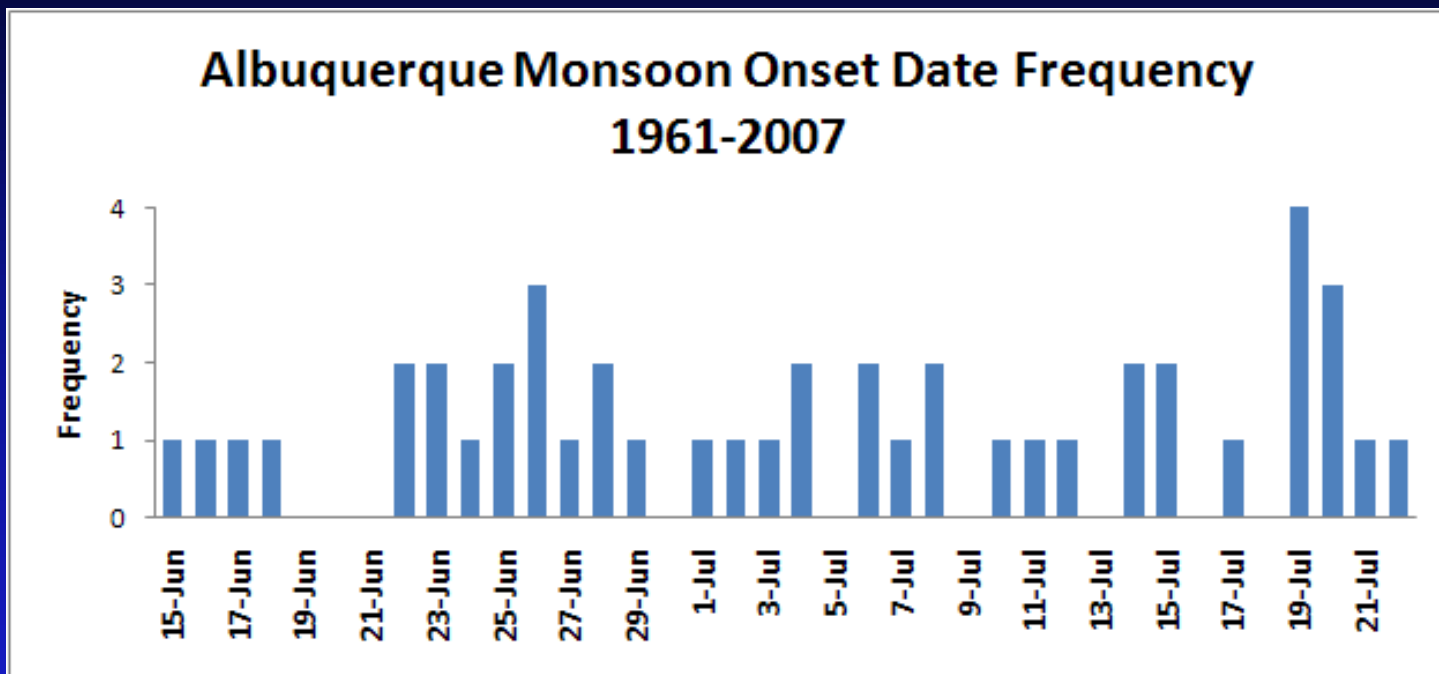
**WEDNESDAY**



**POTENTIAL TO EXPAND SOUTH AND WEST TUESDAY...AREAWIDE WEDNESDAY. LOCALLY HEAVY RAINFALL POSSIBLE!**



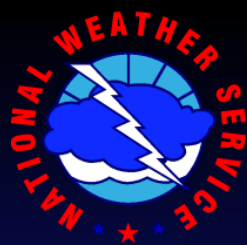
# Monsoon Onset Frequency (ABQ)



Research by P. Higgins (2008) at University of New Mexico

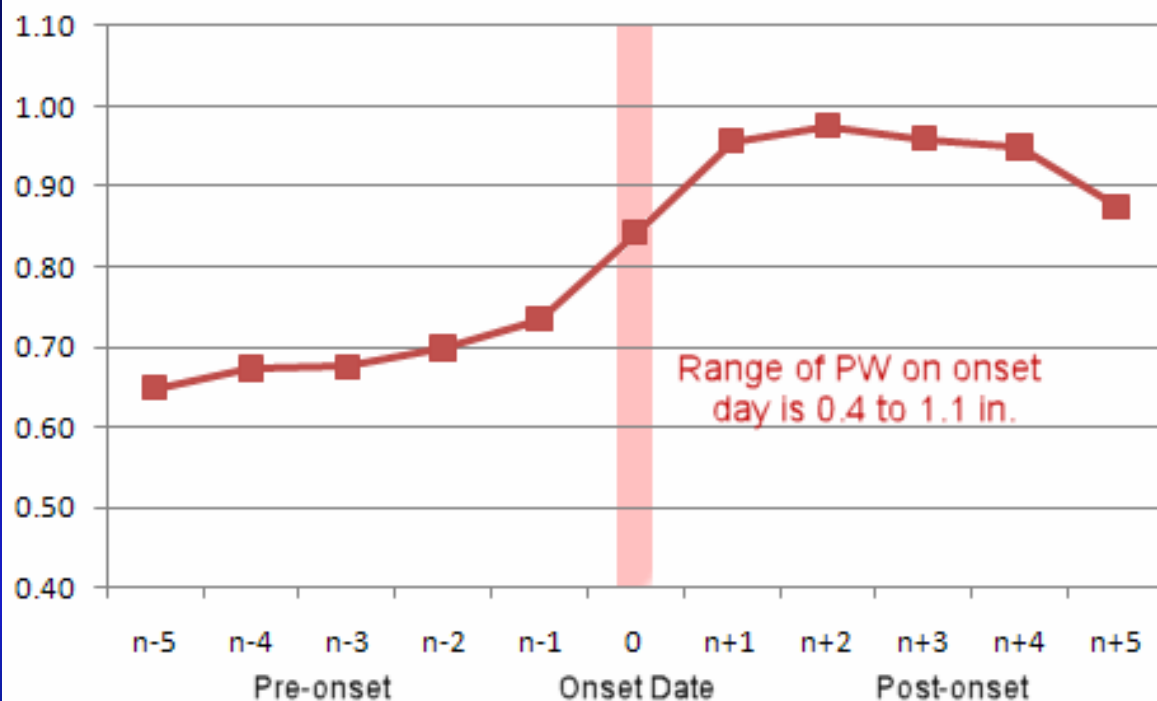
Frequency of monsoon onset at Albuquerque using the threshold of three consecutive days of 47 degree dew point temperature. As you can see, the date of monsoon onset in Albuquerque can occur anytime from mid-June to late July.





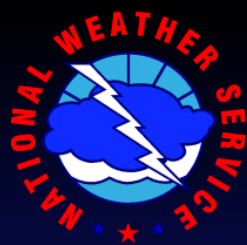
# ABQ Monsoon Onset – Precipitable Water

**Average PW Values for Albuquerque:  
+/- 5 Days of Onset**



Average precipitable water (amount of available moisture in atmosphere) five days prior and after shows a similar trend as dew point temperatures with respect to the monsoon onset in Albuquerque.

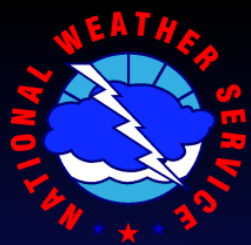
**Note, the range of precipitable water on onset day can range from 0.40-1.10 inches.**



# Onset Affects Average Precipitation

	June-July-Aug	June-July-Aug-Sep
Early Onset June 15-28	6.7"	8.5"
Average Onset June 28-July 11	5.5"	7.2"
Late Onset July 12-22	5.1"	6.9"

Climate Divisions 4, 5, 6, and 8  
(generally the southwest two-thirds of New Mexico).



# Burn Scar Thunderstorm Threat Matrix

## Posting begins tomorrow!

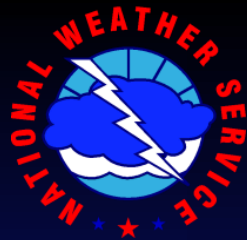
### Burn Scar Thunderstorm Threat Matrix

<u>Burn Scar</u>	Today	Tuesday	Wednesday	Thursday	Friday
Assayii Lake	None	Slight	Slight	Moderate	Slight
Jaroso	None	Moderate	High	High	Moderate
Las Conchas	None	Moderate	High	Moderate	Slight
Little Bear	Slight	Moderate	Moderate	Moderate	Slight
Pacheco	None	Moderate	High	Moderate	Moderate
Thompson Ridge	None	Moderate	High	Moderate	Slight
Tres Lagunas	None	High	High	High	Moderate
White	Slight	Moderate	Moderate	Slight	Slight
Whitewater-Baldy (Catron Co.)	None	Slight	High	Moderate	Slight

Table indicates probability for thunderstorms. This product is for planning purposes only. Refer to the latest bulletins from the NWS concerning immediate threats for flash flooding.

None = 0%	Slight = 10-30%
Moderate = 40-60%	High = 60% +

Working on “heads up” call list! Please contact Kerry Jones directly to follow-up on this particular topic.



*Weekly Weather Briefing*

# Forecast Details

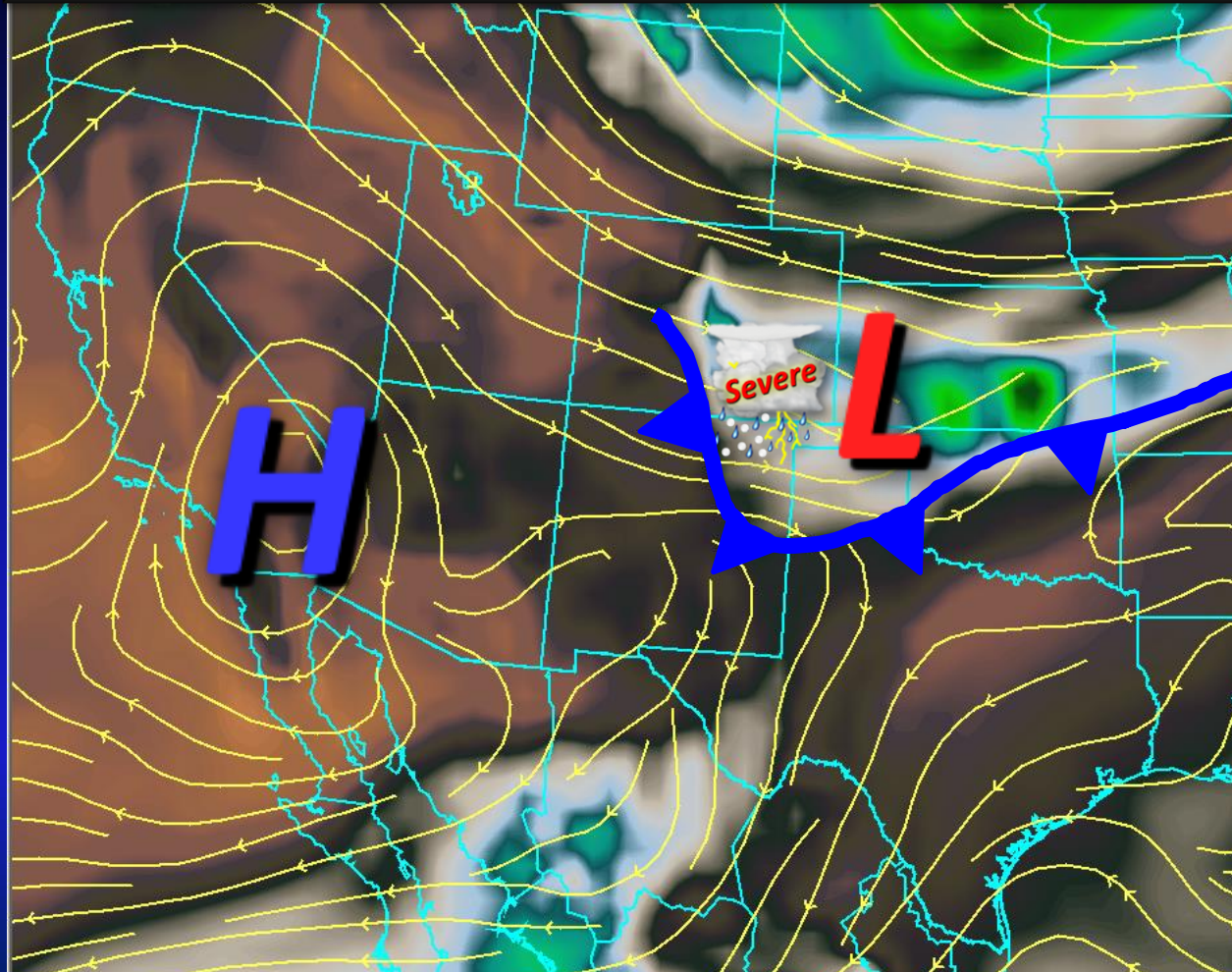




# Upper Level Forecast Chart (Image is Moisture)

*Weekly Weather Briefing*

**Tonight**



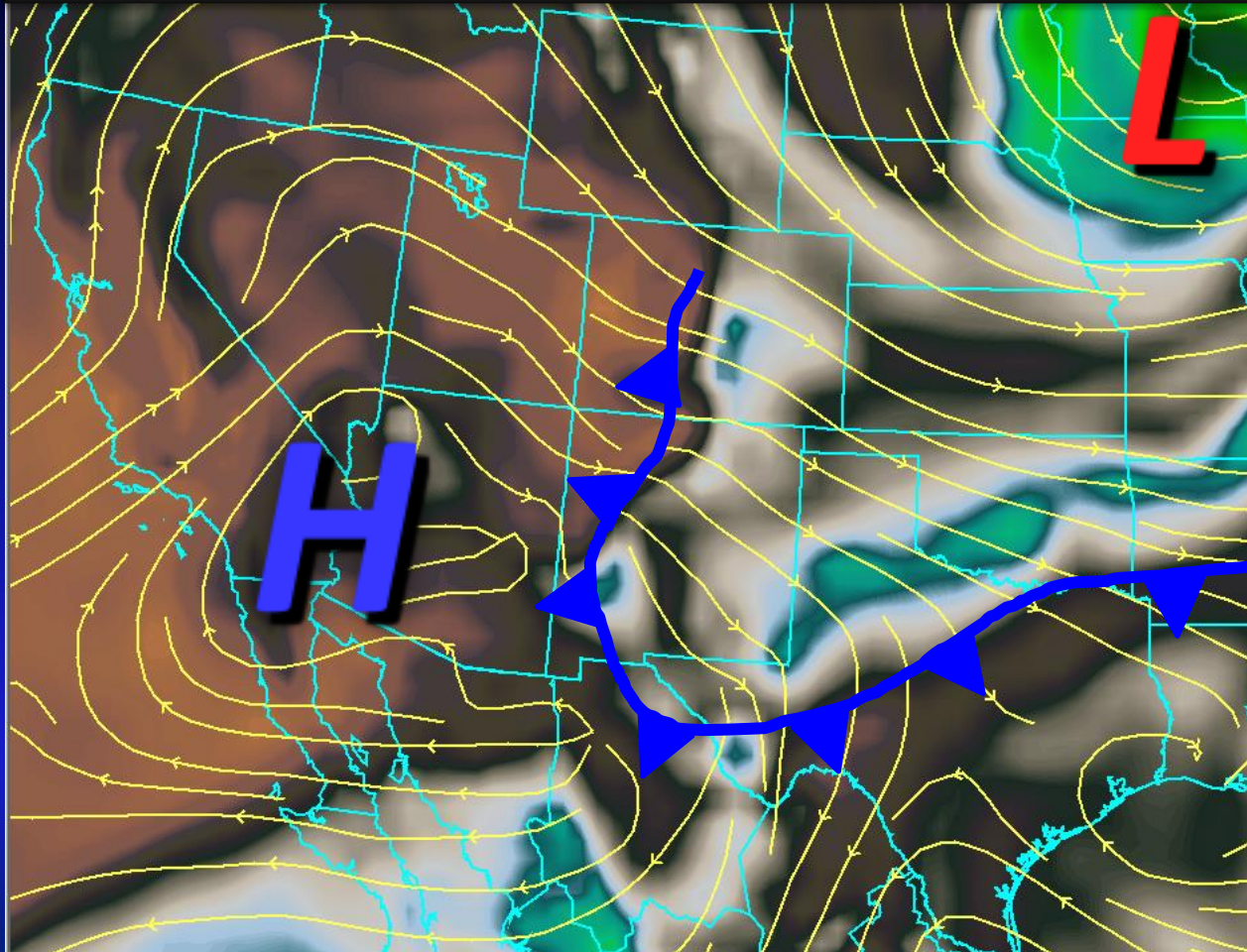
**Tonight:** Strong to severe thunderstorms northeast corner, with isolated to scattered “dry” storms remainder but especially focused over/near the higher terrain.



# Upper Level Forecast Chart (Image is Moisture)

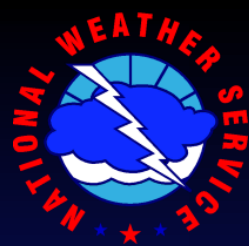
*Weekly Weather Briefing*

**Tuesday**



**Tuesday:** Strong cold front to press south and west across the area as high pressure aloft consolidates over central or western AZ.

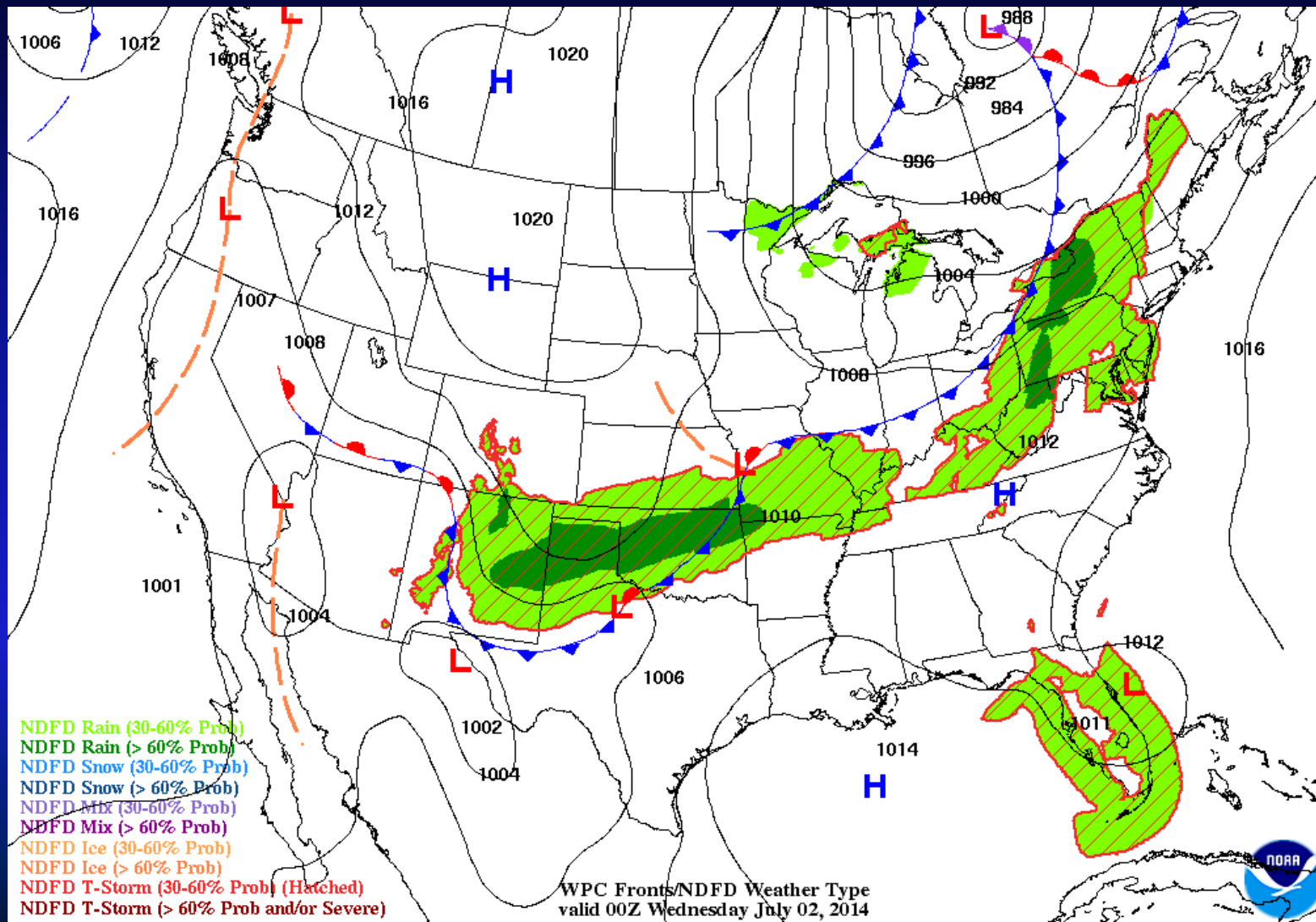


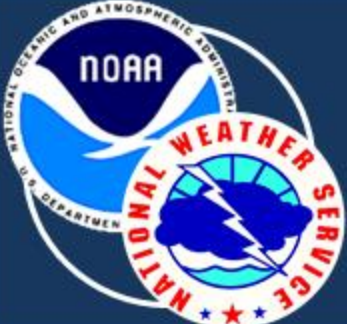


# Official NWS Surface Chart

## Valid 6pm Tuesday

Weekly Weather Briefing



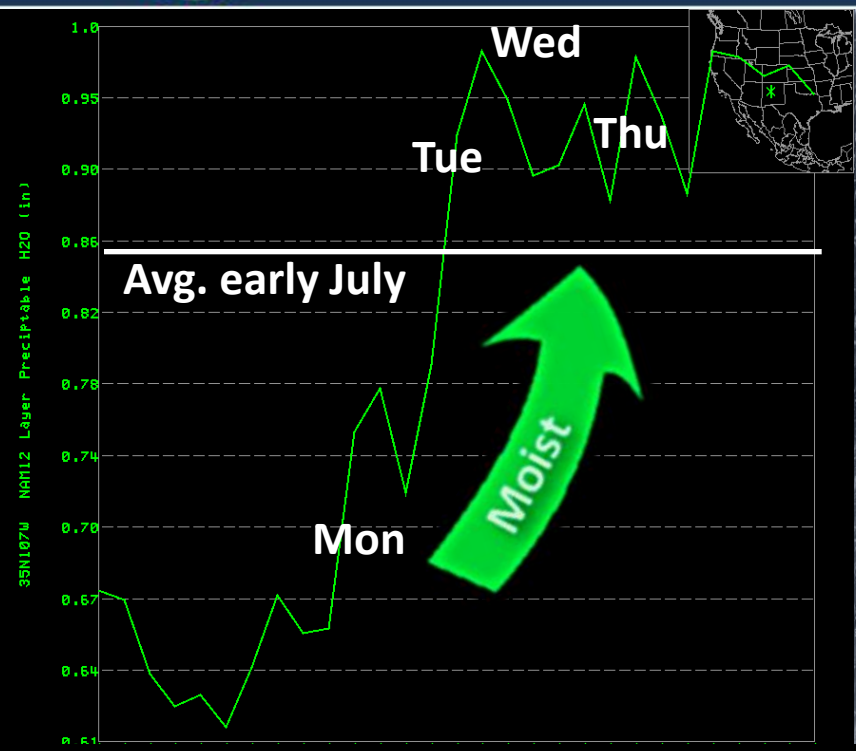


# Monsoon Moisture Surge

@NWSAlbuquerque

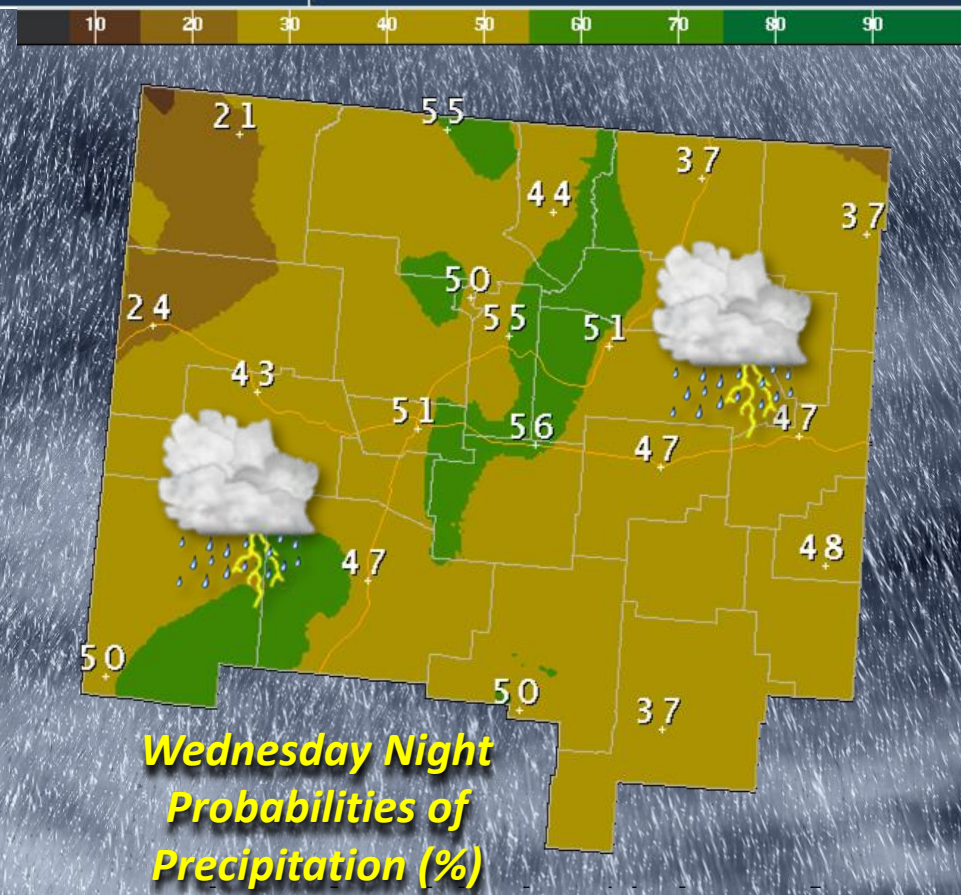
US National Weather Service  
Albuquerque NM

NWSAlbuquerque



## Atmospheric Moisture

Moisture will surge into NM Tue & Wed behind a back door front, allowing for daily rounds of T-Storms across much of the area through the end of the week.

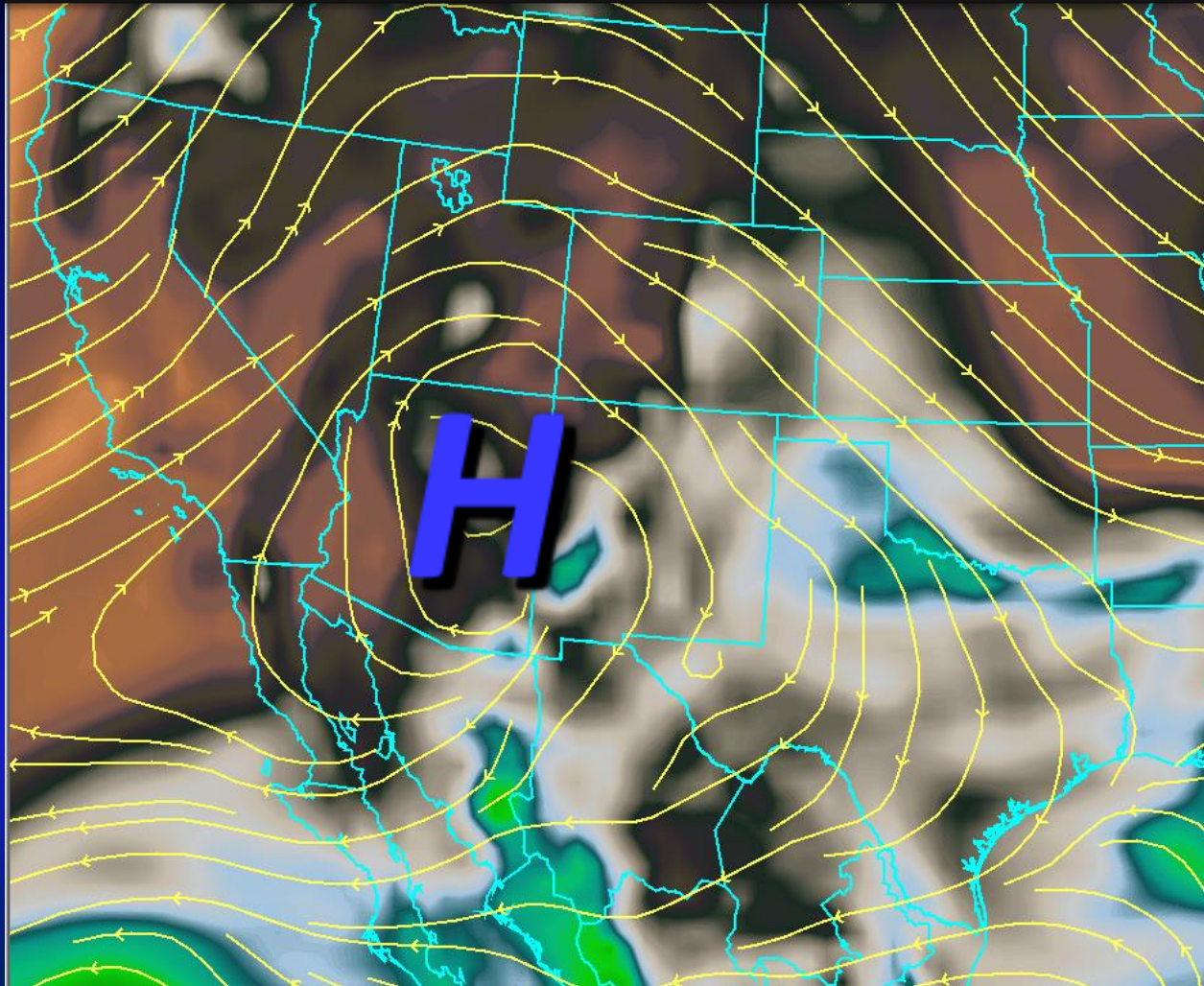






# Upper Level Forecast Chart (Image is Moisture)

**Wednesday**

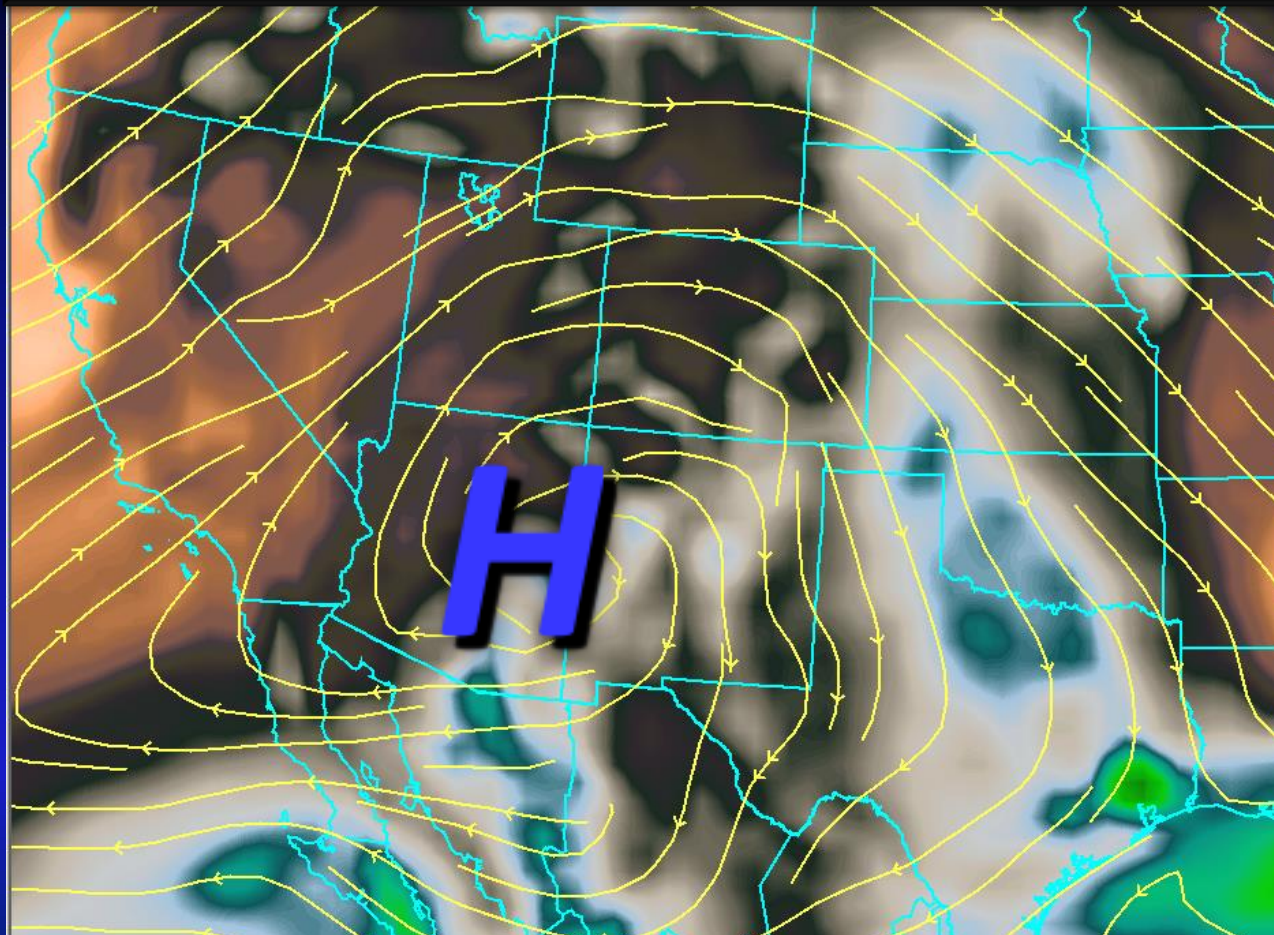


**Wednesday:** High pressure aloft anchored over eastern AZ.  
A light NW to SE or N to S flow aloft indicated.



# Upper Level Forecast Chart (Image is Moisture)

**Thursday**



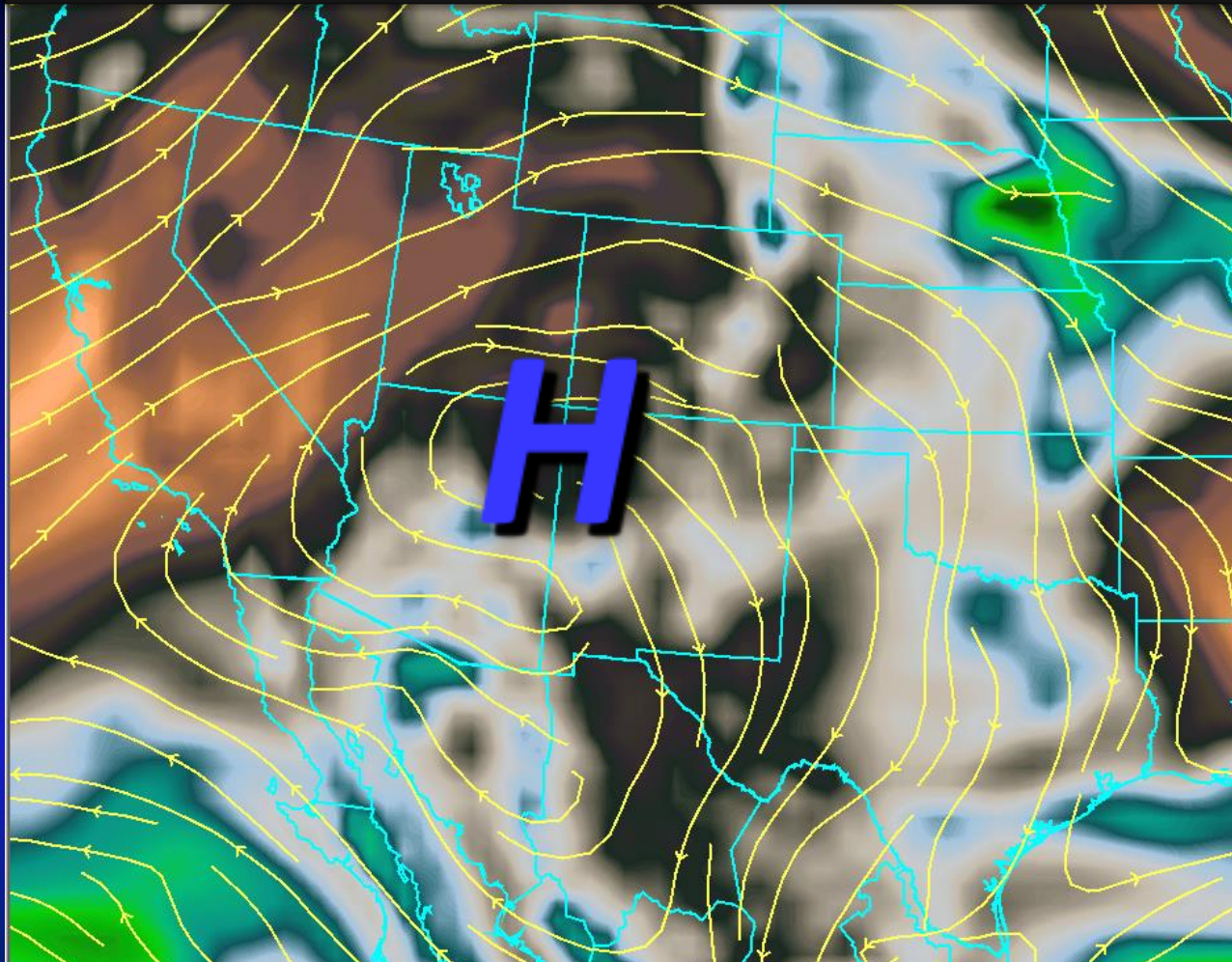
**Thursday:** Classic “recycle” pattern with high pressure aloft slowing migrating northward toward the Four Corners. Steering flow from the north or northwest, which would favor central and southwest areas late day into the evening.





# Upper Level Forecast Chart (Image is Moisture)

Friday



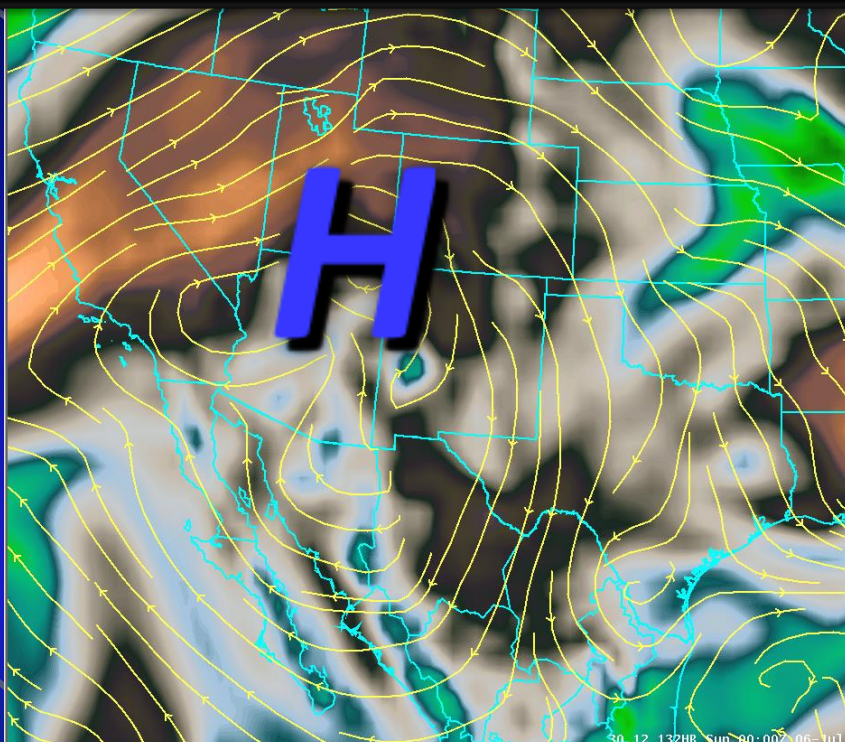
**Friday:** High pressure aloft centered near the Four Corners. General very light NW to SE steering flow over the state with moisture recycling pattern indicated.



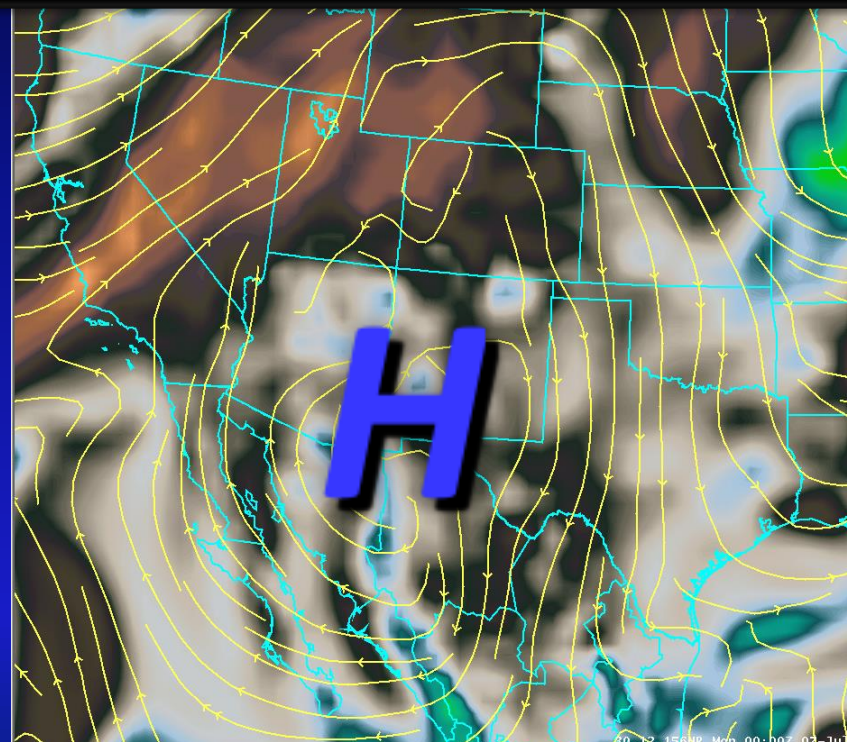
# Upper Level Forecast Chart (Image is Moisture)

## Weekend Outlook

### Saturday



### Sunday



**Weekend:** High pressure aloft centered near the Four Corners indicated to slowly drift back to the south. Daily recycling of moisture will lead to isolated to scattered thunderstorms favoring the higher terrain.

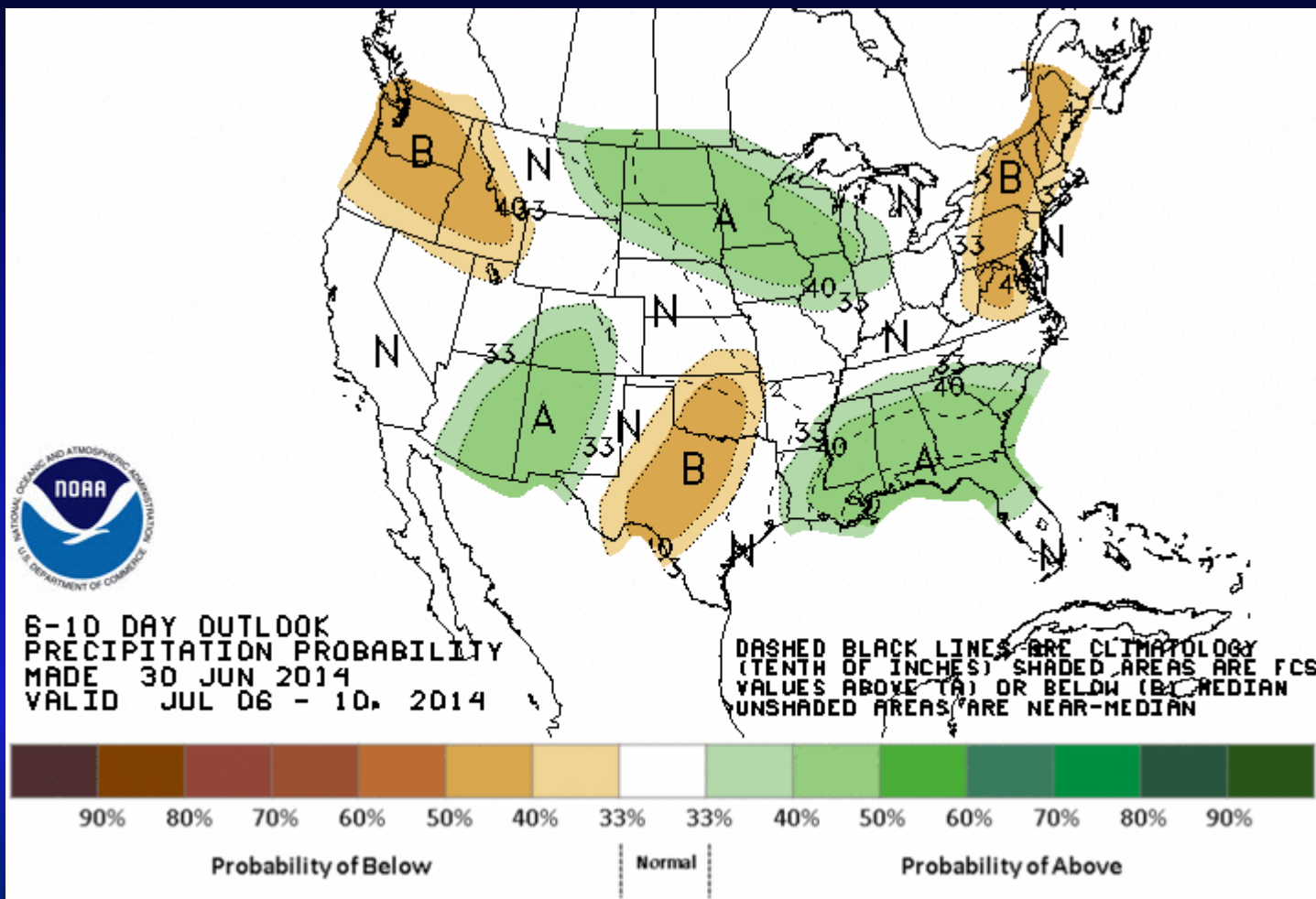




# 6-10 Day Precip Outlook: July 6-10



<http://www.cpc.ncep.noaa.gov/products/predictions/610day/610prcp.new.gif>

Weekly Weather Briefing









# Week at Glance

-  **Tonight** (Dry T-storms/gusty winds)
-  **Tuesday** (canyon winds/more T-storms)
-  **Wednesday** (T-storms locally heavy)
-  **Thursday** (Still storms, but fewer)
-  **Friday** (Isolated-Scattered T-storms)
-  **Weekend** (Isolated-Scattered T-storms)

## Hazards & Impacts

-  None
-  Minor
-  Significant
-  Major

SYNOPSIS: After a hot and mostly dry day Monday, a potent back door front will enter northeastern New Mexico tonight, bringing bountiful moisture to the state. This front will spread south and west through Tuesday morning with the moisture and cooler temperatures accompanying. This will lead to a significant upward trend in showers and thunderstorms Tuesday and Wednesday. The dome of high pressure will then continue to orbit New Mexico through the rest of the week with daily rounds of showers and thunderstorms expected.



# As always...

## Stay up to date...

- ▶ [weather.gov/abq](http://weather.gov/abq)
- f Facebook
- ▶ @NWSAlbuquerque & #nmwx
- ▶ NOAA Weather Radio
- ▶ Favorite Media Outlet
- ▶ [mobile.weather.gov](http://mobile.weather.gov)
- ▶ [NMroads.com](http://NMroads.com)